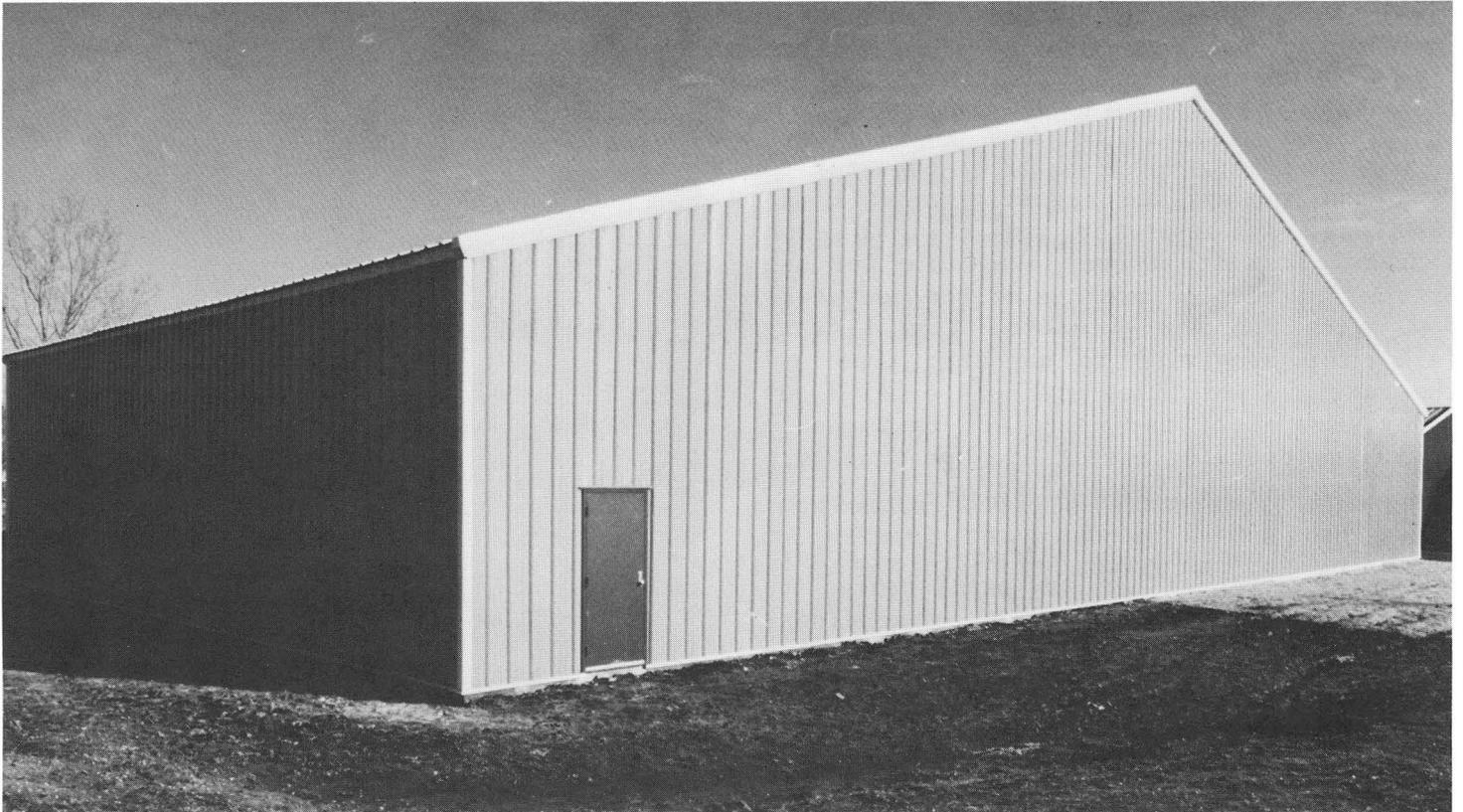


May 12, 1983

FERMI NATIONAL ACCELERATOR LABORATORY

FermiNews

GYM TO HOST OPEN HOUSE WEEK OF MAY 23



The newly completed gymnasium building, part of the Recreation Complex designed for use by Fermilab employees, users, and contractors.

For many years, employees and the user community have suggested the need for an indoor gymnasium. Early in 1979, the Fermilab Recreation Committee prepared the first proposal for a complete gymnasium facility which was very ambitious in its scope. This proposal was presented to the Laboratory but was not accepted because of the great expense. Although the Laboratory was favorable to the project, the money required wasn't available.

With the formation of the Quality of Life Committee, another group of interested people again pursued the possibility of such a facility. In 1980, members began determining the minimum requirements for a gymnasium complex, keeping in mind both the needs of athletes at Fermilab and the need for keeping costs down. They determined that the primary requirement was a building with a full-scale basketball court, in which both tennis and volleyball courts

could be accommodated. They also felt that locker rooms were of utmost importance. The final plan accepted by the Laboratory proposed a very basic shell building erected next to the existing exercise facility in the Village. Appeals for funding to various outside organizations were unsuccessful until the Universities Research Association agreed to provide funding for a minimal facility.

The newly completed complex contains the main gymnasium and an expanded exercise room. Locker rooms and showers will be added and be ready for use by fall. The gymnasium is large enough for a collegiate-size basketball court, but can be converted to a tennis or volleyball court by setting up poles and nets. The exercise room has been refurbished and has new equipment, including a weight machine, free weights, and an exercise bike. Additional space has

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CENTRAL COMPUTING COMPLEX CONTROLS CONGESTION

by Jack Pfister

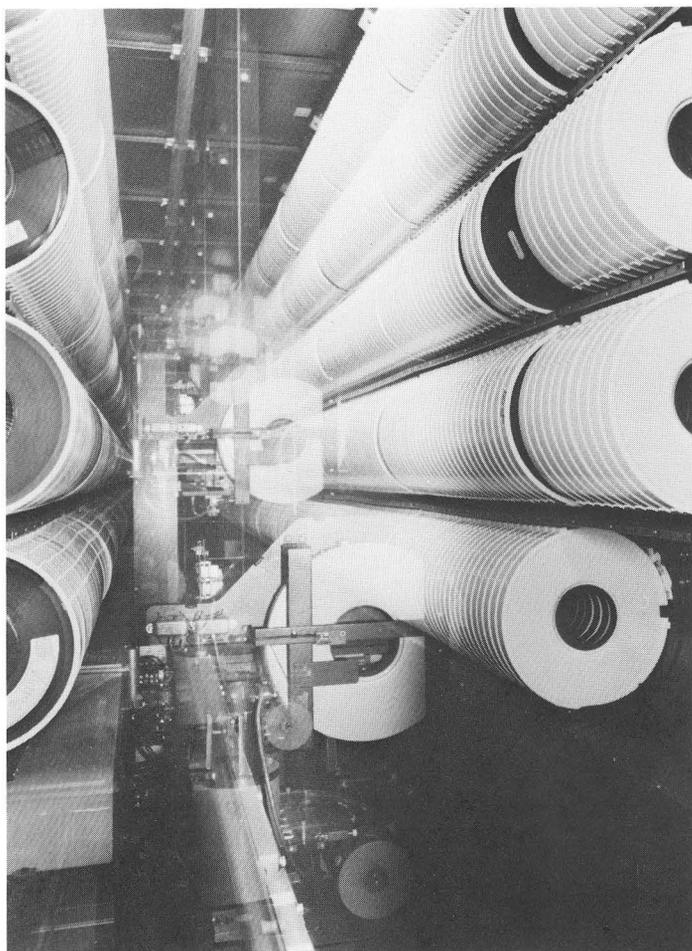
Users of the Central Computing Cyber systems have noticed a recent improvement in performance. It involves the retrieval of files which have not been in recent use. Ordinarily, such unused files are stored on magnetic tape to relieve the ever-present overcrowding of disk-stored files.

In the past, to retrieve these files, it was necessary for a computer operator to find the appropriate magnetic tape, mount the tape, and transfer the file to disk storage. Then it becomes available for use by the application program on the computer. Now, with the new Automated Tape Library (ATL) the archiving to magnetic tape and the retrieval of files are both carried out under control of the computer. This change will save operator effort and speed up both archiving and retrieval of files.

Our Automated Tape Library is a robotic tape retrieval system manufactured by Braegen Corporation. It uses conventional 1/2-in. width magnetic tapes. The configuration installed at Fermilab contains 4,000 reels of tape and has two tape drives. The cost of the system is much lower than the cost of additional disk drives to hold the files would be. Furthermore, the turnaround for retrieving archived files is faster, and there is greater availability of operators and tape drives for computing jobs.

A number of people from both hardware and software groups have contributed to the design development, implementation, and maintenance of the ATL. Principals in our

Computing Department included Ed Kubaitis, Mark Pyatetsky, Rich Knowles, Gene Dentino, Jim Norris, Dave Mausner, and Curt Canada. Vendor hardware support included Braegen Corporation, Control Data Corporation, and Lawrence Berkeley Laboratory where the CDC to ATL processor interface was designed and built.



Time lapse photograph of the ATL in operation.

STRING TRIO TO PERFORM IN RAMSEY AUDITORIUM MAY 21

A very special evening of "strings plucked and drawn" will be presented in Ramsey Auditorium on Saturday, May 21, at 8 p.m. when Jacques Israelievitch, concertmaster of the St. Louis Symphony, performs with his wife, Gail Bass Israelievitch, harpist, and cellist Saveley Schuster. The trio's program will feature a variety of works for various combinations of their three instruments: J. M. LeClair, Sonata in A Major for violin and harp; Z. Kodaly, Duo, Opus 7 for violin and cello; J. Ibert, Entr-Acte for violin and cello; Rossini, Andante con Variazioni for violin and harp; R. Chamberlin, 3 Pastimes 3 written for the Israelievitch duo; J. Ibert, Trio (1944) for harp, violin, and cello.

Phone ext. 3353 now for reservations to this unique evening of string music. Admission is \$5, and tickets are available at the Information Desk in the atrium of Wilson Hall.

DOORKNOB COLLECTOR DESCRIBES HOBBY, HISTORY

by Loretta Nemec

[Editor's Note: Loretta Nemec's doorknob collection will be on display in the second floor gallery of Wilson Hall during May.]



Loretta Nemec displays some of her more unusual knobs, including the mysterious "bee" mounted in the upper left-hand corner on the board as one stands behind it.

Throughout life everyone collects something, be it rubber bands on the doorknob in grandmother's house or buttons. Just look around. Maybe it's only paycheck receipts, but we all collect.

A little black jet doorknob started my collection. The beauty of the black jet with a little brass shank intrigued me. The little jet knob came from my childhood home, and for some strange reason I fell in love with it. Be it the simplicity or what, I do not know. All I know is that I wanted one of my father's doorknobs from his house in Chicago. With a little encouragement from my mother, I got the doorknob with its escutcheon plate.

I was satisfied for the moment just having the jet knob on display in my home. The satisfaction didn't last long, and the search was on. I began going into antique shops just looking for jet knobs to give to friends. Soon my eyes caught other knobs, from white porcelain to brown pottery, to glass, to brass, to wood. Yes, I was hooked. Friends started bringing me doorknobs, and soon they were on display in my home on shelves, tables, and window sills. It was a conversation piece to whomever entered my home. At present, my collection contains about 300 doorknobs.

Most people chuckle when they hear I am a doorknob collector, but their opinion soon changes when they see my knobs. Most people have absolutely no concept of the designs and the beauty of ornamental hardware. For those who think collecting and investments should be synonymous, doorknobs are nothing to sneer at. One collector recently sold his doorknobs for \$10,000! At present one of my most priceless doorknobs was found in a little antique shop in Oswego, Illinois. It is a 14-ounce brass, oval shape with a bee imprinted on it. It originally came from Austria, and as the story goes, Napoleon's wife was a bee fancier...

Like most early American tools, doorknobs were simple. The earliest knobs were homemade types from the forge. There were some imports. The knob took form around the same time as the birth of our nation, 1776. When copies of imports were made, Yale and Towne sought assistance from architects and skilled designers from Europe. Soon American ingenuity set to work.

Wooden Knobs. The earliest date issued was around 1829. They were made from hard wood such as oak, hickory, walnut, mahogany, cherry, and ash.

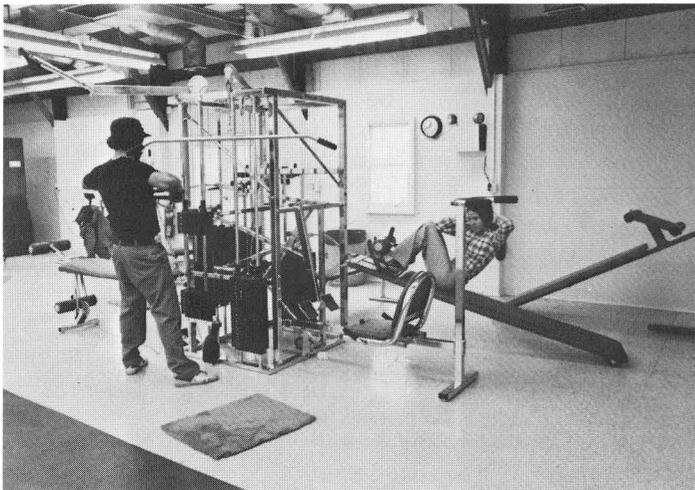
Glass Knobs were known in two forms, blown glass and press glass. They were free form until 1890 when machines were first used. Pressed glass was first manufactured in this country around 1826.

Cut Glass and Cut Crystal became popular from 1876 to 1920. The period was known as the Brilliant Period.

(cont'd. on pg. 4)

NEW EQUIPMENT IN GYM

(cont'd. from pg. 1)



Carol Wilkinson of the University of Wisconsin and Glenn Smith of Fermilab try out the Universal weight machine in the refurbished exercise room in the Recreation Complex.

been provided with exercise mats suitable for gymnastics, aerobics, or martial arts practice. Plans for scheduling open recreation time and specific activities are being based on interest groups and their desire to use the new facilities. Requests for use of time and space will be accepted by the Recreation Office.

Use of the Fermilab Recreation Complex will be limited to members only. Membership is open to Fermilab employees, users, contractors, and members of their immediate families. A nominal yearly fee will be charged to pay for a membership key and to help pay for maintenance. Everyone is cordially invited to attend Open House at the Complex during the week of May 23. Memberships may be purchased there or in the Recreation Office, WH1E, after May 23.

Watch for posters in Wilson Hall announcing the Open House for the new Recreation Facility!

SIGMA XI LECTURE TONIGHT

Dr. Klementina Khait will summarize her experiences while working as a senior staff scientist for the Plastpolymer Company in Leningrad, one of the large research centers in Russia, at 8 p.m. Thursday, May 12, at the Amoco Research Center. The presentation will include slides of Leningrad and a discussion of Russian culture and social life. The lecture is free and open to the public.

DOUBLER DEVELOPMENTS

During the weekend of April 30, the orbit through E and F sectors was nearly perfectly tuned with the correction dipoles. The beam was displaced horizontally and vertically by as much as one inch from the centerline at the magnets. As each displacement was made, the automatic tuning system used information from the beam position monitors to smooth the beam orbit. The ability to displace the beam by these large amounts with no beam losses over the 2 km path demonstrates the precision to which the more than 300 magnets in E and F sectors are aligned.

Progress was so successful that no further Doubler beam studies will be conducted until a closed orbit is attempted early in June. This attempt now awaits only the cooldown of A and B sectors and completion of the power system for the same two sectors.

On May 2, the final two cryogenic beam line elements were installed in the ring (two spool pieces at A-47 and A-49), thus physically "closing" the ring. With record speed by the the hookup/leak check teams, A-sector was declared leaktight by 2 p.m. May 4. Meanwhile, sectors C and D had been cooled to liquid helium temperatures and their 4000-amp power systems completed.

Optimists are now hoping for a Memorial Day attempt at circulating beam—a slight advance from the goal set last January.

DOORKNOBS ON DISPLAY IN MAY

(cont'd. from pg. 3)

Pottery Knobs, including white porcelain and jet black, were made for common use when simplicity was in vogue.

Metal knobs made of grey cast iron became known as a "gentleman's" knob.

Cast Bronze and Cast Brass knobs are superior to wrought which are rolled from ingots. Copper is too soft for fine casting.

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